WHAT IS CLAIMED IS:

1. A pipe coupling which has a socket and a plug connectable to each other, comprising:

a plug body having a distal end portion, an axial bore opening in the distal end portion, and an outer peripheral portion on which a projection is formed;

a socket main cylinder having first and second end portions and an axial bore which extends between the end portions and through which a fluid can flow;

a ball valve which has a through bore formed having one end capable of receiving the distal end portion of the plug body and the other end portion capable of communicating with the axial bore, is located at a first end portion of the socket main cylinder, and controls the axial bore in an open-close condition;

an annular seal unit located near the first end portion in the axial bore and having a distal end portion formed having a ball valve receiving surface in sealed engagement with the ball valve;

a casing which has a base portion fixed to the first end portion of the socket main cylinder, a top portion opposed to the base portion, a flank portion located between the first end portion and the top portion, and a slot extending from the flank portion to the top portion and which supports the ball valve in conjunction with the ball valve receiving surface, the

slot having a flank opening, which is aligned with the one end of the through bore and through which the projection of the plug body can be passed when the other end of the through bore is disconnected from the axial bore of the socket main cylinder, and a top opening, which is aligned with the one end of the through bore and engages the projection when the other end of the through bore communicates with the axial bore of the socket main cylinder, so that the ball valve is rocked by the plug body in the one end of the through bore between a position in which the other end of the through bore communicates with the axial bore of the socket main cylinder and a position in which the other end is disconnected from the axial bore; and

a lock element located for reciprocation in the through bore of the ball valve, the lock element being urged toward the one end and adapted to move into the flank opening to prevent the ball valve from rocking with respect to the casing when the one end of the through bore of the ball valve is aligned with the flank opening and to move into the through bore of the ball valve to allow the ball valve to rock with respect to the casing when the plug body is inserted into the one end of the through bore.

2. A pipe coupling according to claim 1, wherein the lock element comprises a cylindrical element, having an outer peripheral portion smaller in diameter

than the flank opening and an inner peripheral portion larger in diameter than the distal end portion of the plug body, and a retaining step portion protruding from the outer peripheral portion of the cylindrical element and having a diameter larger than that of the flank opening.

3. A pipe coupling according to claim 2, wherein the lock element has a retaining step portion inwardly protruding from the inner peripheral portion and capable of engaging the projection of the plug body.

4. A pipe coupling according to claim 1, wherein the axial bore is formed of a stepped bore having a large-diameter portion and a small-diameter portion, and the seal unit has an annular seal holding member located in the large-diameter portion for axial movement, a collar located in the seal holding member for axial movement, and a seal ring located between the seal holding member and the collar and in sealed engagement with the ball valve.

5. A pipe coupling according to claim 1, wherein the casing has a fitting projection protruding from the peripheral portion of the top opening, and the plug body has a lock member which is stopped by the fitting projection to prevent the movement of the ball valve when the ball valve is rocked from the position in which the other end of the through bore is disconnected from the axial bore of the socket main cylinder to the

position in which the other end communicates with the axial bore.

6. A pipe coupling according to claim 5, wherein the lock member is urged toward the distal end portion of the plug body.

7. A socket which forms a pipe coupling in conjunction with a plug having a distal end portion, an axial bore opening in the distal end portion, and an outer peripheral portion on which a projection is formed, comprising:

a main cylinder having first and second end portions and an axial bore which extends between the end portions and through which a fluid can flow;

a ball valve which has a through bore formed having one end capable of receiving the distal end portion of the plug and the other end portion capable of communicating with the axial bore, is located at a first end portion of the main cylinder, and controls the axial bore in an open-close condition;

an annular seal unit located near the first end portion in the axial bore and having a distal end portion formed having a ball valve receiving surface in sealed engagement with the ball valve;

a casing which has a base portion fixed to the first end portion of the main cylinder, a top portion opposed to the base portion, a flank portion located between the first end portion and the top portion, and

a slot extending from the flank portion to the top portion and which supports the ball valve in conjunction with the ball valve receiving surface, the slot having a flank opening, which is aligned with the one end of the through bore and through which the projection of the plug can be passed when the other end of the through bore is disconnected from the axial bore of the main cylinder, and a top opening, which is aligned with the one end of the through bore and engages the projection when the other end of the through bore communicates with the axial bore of the main cylinder, so that the ball valve is rocked by the plug in the one end of the through bore between a position in which the other end of the through bore communicates with the axial bore of the main cylinder and a position in which the other end is disconnected from the axial bore; and

a lock element located for reciprocation in the through bore of the ball valve, the lock element being urged toward the one end and adapted to move into the flank opening to prevent the ball valve from rocking with respect to the casing when the one end of the through bore of the ball valve is aligned with the flank opening and to move into the through bore of the ball valve to allow the ball valve to rock with respect to the casing when the plug is inserted into the one end of the through bore.